

IN THE CLAIMS:

The following is a complete listing of the claims in this application, reflecting all changes currently being made to the claims, and replaces all earlier versions and all earlier listings of the claims:

Claim 1. (Currently Amended): An image processing apparatus comprising:

extraction means for extracting a pixel signal of an image pickup means that has a plurality of pixels, and for determining positional information of defective pixels based on the pixel signal;

block-forming means for judging whether a plurality of the defective pixels are adjacent to each other on the basis of the positional information of the defective pixels, and encoding the adjacent defective pixels which are continuously located in one direction by using run-length codes which are information on the first coordinate values and lengths of the plurality of defective pixels, said block-forming means defining a block containing the adjacent defective pixels and peripheral, non-defective pixels for correcting the defective pixels, ~~the blocks formed in this way varying from one another in size or shape or both depending on the number of the adjacent defective pixels in the block and the location of those defective pixels relative to one another;~~

storage means for storing ~~the run-length codes~~ positional information of the plurality of defective pixels and peripheral, non-defective pixels for correcting the defective pixels within the block as regional information of the defective pixels; and

correction means for correcting the defective pixels by using the peripheral pixels of the defective pixels,

wherein said correction means ~~integrates the run-length codes into region information of the defective pixels which are adjacent to each other~~ corrects the plurality of defective pixels within the block based on the positional information of the plurality of defective pixels and peripheral, non-defective pixels for correcting the defective pixels within the block as region information of the defective pixels, and

~~wherein said correction means do not use the other defective pixels based on the regional information.~~

Claims 2 - 32. (Cancelled).

Claim 33. (Previously Presented): An image processing apparatus according to claim 1, wherein said extraction means judges pixels defective when the value of the pixel signal is within a predetermined range and determines the positional information of the defective pixels.

Claim 34. (Cancelled)

Claim 35. (Currently Amended) An image processing method comprising:

a first step, of extracting a pixel signal of image pickup means having a plurality of pixels and determining positional information of defective pixels based on the pixel signal;

a second step, of judging whether a plurality of defective pixels are adjacent to each other on the basis of the positional information of defective pixels, and encoding the adjacent defective pixels which are continuously located in one direction by using run-length codes which are information on the first coordinate values and lengths of the plurality of defective pixels, said second step including defining a block containing the adjacent defective pixels and peripheral, non-defective pixels for correcting the defective pixels, ~~the blocks formed in this way varying from one another in size or shape or both depending on the number of the adjacent defective pixels in the block and the location of those defective pixels relative to one another ;~~

a third step, of storing the run-length codes positional information of the plurality of defective pixels and peripheral, non-defective pixels for correcting the defective pixels within the block as regional information of the defective pixels; and

a fourth step, of correcting the defective pixels by using the peripheral pixels of the defective pixels,

wherein, in said fourth step, ~~run-length codes are integrated into region information of the defective pixels which are adjacent to each other~~ the plurality of defective pixels within the block are corrected based on the positional information of the plurality of defective pixels and peripheral, non-defective pixels for correcting the defective pixels within the block as region information of the defective pixels, and

~~wherein said fourth step is performed without using the other defective pixels based on the region information.~~

Claim 36. (Cancelled)

Claim 37. (Currently Amended): A storage medium storing a program which comprises:

a first step, of extracting a pixel signal of image pickup means having a plurality of pixels and determining positional information of defective pixels based on the pixel signal;

a second step, of judging whether a plurality of defective pixels are adjacent to each other on the basis of the positional information of defective pixels, and encoding the adjacent defective pixels which are continuously located in one direction by using run-length codes which are information on the first coordinate values and lengths of the plurality of defective pixels, said second step including defining a block containing the adjacent defective pixels and peripheral, non-defective pixels for correcting the defective pixels, the blocks formed in this way varying from one another in size or shape or both depending on the number of the adjacent defective pixels in the block and the location of those defective pixels relative to one another;

a third step, of storing the run-length codes positional information of the plurality of defective pixels and peripheral, non-defective pixels for correcting the defective pixels within the block as regional information of the defective pixels; and

a fourth step, of correcting the defective pixels by using the peripheral pixels of the defective pixels,

wherein, in said fourth step, ~~run-length codes are integrated into region information of the defective pixels which are adjacent to each other~~ the plurality of defective pixels within the block are corrected based on the positional information of the plurality of defective pixels and peripheral, non-defective pixels for correcting the defective pixels within the block as region information of the defective pixels and wherein said fourth step is performed without using the other defective pixels based on the region information.

Claim 38. (New) An image apparatus according to claim 1, wherein said block forming means selects a method for forming a block from a method used in case of correcting a defective pixel by using four non-defective pixels adjacent to the defective pixel or a method used in case of correcting a defective pixel by using eight non-defective pixels adjacent to the defective pixel.